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CLAIMS

1. A method for detecting the putative agent for TSE in animals comprising taking a body tissue sample from an animal, reacting the
 5 sample in a immunological assay with a labelled antibody which is capable of reacting with PrP^{SC} and determining the amount of labelled antibody bound to the sample.

2. A method as claimed in claim 1 wherein the antibody used in the
 10 assay is raised against a synthetic peptide sequence having the general formula:

X-(R₁-Lys-His-R₂)-Ala-Gly-Ala-Ala-Ala-R₃-Gly-Ala-Val-Val-Gly-Gly-Leu-Gly-Gly-Tyr-Met-Leu-Gly-Ser-Ala-Met-Ser-(Arg-Pro-R₄-R₅)-Y

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wherein R₁ is an amino acid residue selected from Met, Leu and Phe;

R₂ is either Met or Val;

R₃ is Ala or is absent;

20 R₄ and R₅ are independently an amino acid residue selected from Leu, Ile and Met; one or more residues within brackets maybe present or absent with the proviso that if they are present they are attached to the rest of the peptide in sequence; and X and Y may each independently be absent or independently be one or more additional amino acid residues.

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3. A method as claimed in any preceding claim wherein the antibodies are prion specific antibodies raised against one or more of the following sequences:

30 MVKSHIGSWILVLFVAMWSDVGLCKRKPGGGWNTGGSRYPGQ-44

GSPGGNRYPPQGGGWGQPHGGGWGQPHGGGWGQPHGGGQGP-87

GGGGWGGGSHSOWNKPSKPPKTNMKHVAGAAAGAVVGGGLGGY-131

MLGSAMSSPLIHFGNDYEDRYTRENMYRYPNQVYRPPVDRYSNQNN-177

35 4. A method as claimed in claim 3 wherein the antibodies are antibodies raised against the underlined sequences shown in claim 3.

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5. A method as claimed in any preceding claim wherein the immunological assay may be a competitive assay in which a solid support, suitably a microtitre plate, is pre-coated with a carrier protein-peptide conjugate, the animal tissue sample and an anti-peptide antibody are added to the solid support, allowed to react and the support washed. a labelled anti-(anti-peptide antibody) antibody is added, allowed to react, washed, a signal reagent added and the signal read.
6. The method as claimed in any preceding claim wherein the animals are selected from cattle, sheep and pigs and the tissue sample is taken from a carcass of such animals.
7. A method as claimed in any preceding claim wherein a sample of CNS tissue, suitably a cross-section of spinal cord, is used for testing.
8. A test kit for the detection of TSE in animals comprising an anti-peptide antibody raised against a synthetic peptide sequence having the general formula:
- $$X-(R_1\text{-Lys-His-}R_2\text{)-Ala-Gly-Ala-Ala-Ala-}R_3\text{-Gly-Ala-Val-Val-Gly-Gly-Leu-Gly-Gly-Tyr-Met-Leu-Gly-Ser-Ala-Met-Ser-(Arg-Pro-}R_4\text{-}R_5\text{)-Y}$$
- wherein R_1 is an amino acid residue selected from Met, Leu and Phe;
 R_2 is either Met or Val;
 R_3 is Ala or is absent;
 R_4 and R_5 are independently an amino acid residue selected from Leu, Ile and Met; one or more residues within brackets maybe present or absent with the proviso that if they are present they are attached to the rest of the peptide in sequence; and X and Y may each independently be absent or independently be one or more additional amino acid residues.